

IN THE CLAIMS:

Please CANCEL claims 3, 9 and 14 without prejudice to or disclaimer of the recited subject matter.

Please AMEND claims 1, 2, 4-8, 10-13 and 15, as follows. For the Examiner's convenience, all claims currently presented are reproduced below.

1. (Currently Amended) A method of measuring a position of a surface of an object while ~~relatively scanning~~ the object is scanned relative to ~~and~~ a detection unit in a scanning direction in an X-Y plane, the detection unit being configured to detect the position of the surface in a Z direction perpendicular to the X-Y plane, said method comprising:

a ~~first measuring~~ detecting step ~~for relatively of scanning the detecting object relative to the detection unit and a first object in a plurality of in two scanning directions and for measuring, opposite to each other, and detecting, with respect to each of the plurality of two scanning directions, a surface position of the first object surface for the same detection point on the surface;~~

a calculating step ~~for of~~ calculating a ~~corrective amount~~ correction value for correcting a position of the surface position to be provided detected by the detecting detection unit, based ~~on the basis of the surface positions obtained with respect to the plurality of the surface detected with respect to the two scanning directions~~ [[at]] in said first measuring detecting step;

a ~~second measuring step for measuring a surface position of a second object while relatively scanning the detecting unit and the second object in any one of the plurality of directions;~~ and

a correcting step ~~for~~ of correcting the surface position of the ~~second object~~ obtained by said ~~second measuring step~~, on the basis of the ~~corrective amount~~ surface detected by the detection unit while the object is scanned relative to the detection unit in one of the two scanning directions, with the correction value obtained ~~by~~ in said calculating step.

2. (Currently Amended) A method according to ~~Claim~~ claim 1, wherein the object is a semiconductor wafer.

3. (Canceled)

4. (Currently Amended) A method according to ~~Claim~~ claim 1, wherein ~~[[,]]~~ said detecting step detects at said ~~first measuring step~~, the surface position of the ~~first object~~ is measured with regard to surface with respect to each of a plurality of sample shot regions on the ~~first object~~ surface.

5. (Currently Amended) A method according to ~~Claim~~ claim 1, wherein, in said calculating step, the ~~corrective amount is calculated so that the surface positions obtained at~~ of the surface detected in said ~~first measuring~~ detecting step with respect to the ~~plurality of two scanning directions are registered with a position to be defined by weighted averaging them~~ weight averaged, and the correction value is calculated based on the weighted average.

6. (Currently Amended) A method according to ~~Claim 1~~ claim 4, wherein, in said calculating step, data of ~~surface~~ the position of the surface to be used for calculation of the

~~corrective amount~~ correction value is chosen based on the basis of a difference in between the
surface positions obtained at said first measuring step of the surface detected for the same point
with respect to the ~~plurality of~~ two scanning directions in said detecting step.

7. (Currently Amended) A measuring ~~system~~ apparatus for measuring a position of a surface of an object while the object is scanned in a scanning direction in an X-Y plane, said
apparatus comprising:

a detecting unit ~~for detecting~~ configured to detect the position of the surface of the object in a Z direction perpendicular to the X-Y plane;

a ~~scanning unit for relatively scanning~~ stage configured to scan the object and relative to said detecting unit in the scanning direction;

~~a calculating unit for calculating, on the basis of surface positions of a first object obtained by relatively scanning the first object and said detecting unit in a plurality of directions,~~
~~a corrective amount for correcting a surface position to be provided by said detecting unit; and~~

~~a correcting unit for correcting a surface position of a second object obtained by relatively scanning the second object and said detecting unit in any one of the plurality of directions, on the basis of the corrective amount obtained by said calculating unit~~

a controller configured to cause said stage to scan the object relative to said
detecting unit in two scanning directions opposite to each other, to detect, with respect to each of
the two scanning directions, a position of the surface for the same detection point on the surface,
to calculate a correction value for correcting a position of the surface to be detected by said
detecting unit while the object is scanned relative to said detecting unit in one of the two
scanning directions, based on the positions of the surface detected for the same detection point

with respect to the two scanning directions, and to correct the position of the surface detected by said detecting unit while the object is scanned relative to said detecting unit in the one of the two scanning directions, with the calculated correction value.

8. (Currently Amended) A measuring ~~system~~ apparatus according to ~~Claim 7~~ claim 7, wherein the object is a semiconductor wafer.

9. (Canceled)

10. (Currently Amended) A measuring ~~system~~ apparatus according to ~~Claim~~ claim 7, wherein ~~the surface~~ said controller is configured to cause said detecting unit to detect the position of the first object is measured surface with respect to each of a plurality of sample shots on the first object shot regions on the surface.

11. (Currently Amended) A measuring ~~system~~ apparatus according to ~~Claim~~ claim 7, wherein ~~said calculating unit calculates the corrective amount so that the surface~~ controller is configured to weight average the positions of the first objects surface detected for the same point with respect to the plurality of two scanning directions, and to calculate the correction value based on the weighted average are registered with a position to be defined by weighted averaging them.

12. (Currently Amended) A measuring ~~system~~ apparatus according to ~~Claim 7~~ claim 10, wherein ~~said calculating unit chooses~~ controller is configured to choose data of the position of

- the surface position to be used for calculation of the ~~corrective amount~~ correction value, based on the basis of a difference in the surface between the positions of the first object with respect to the plurality of surface detected for the same position with respect to the two scanning directions.

13. (Currently Amended) An exposure apparatus for ~~exposing~~ scanning an object in a scanning direction in an X-Y plane, measuring a position of a surface of the object, which is scanning, in a Z direction perpendicular to the X-Y plane, moving the object, which is scanning, in the Z direction based on the measured position, and exposing the object, which is scanning and moving, to a pattern, said apparatus comprising:

a measuring system ~~as recited in Claim apparatus,~~ according to claim 7, for measuring ~~a surface~~ the position of the surface of the object[[;]] and ~~exposure means for exposing the object with the pattern.~~

14. (Canceled)

15. (Currently Amended) A method of manufacturing a device, said manufacturing method[[,]] ~~including a step of~~ comprising:

exposing an object to a pattern by use of an exposure apparatus as recited defined in Claim claim 13;

developing the exposed object; and

processing the developed object to manufacture the device.